



Application No. 09/937,653  
Attorney Docket No. 05788.0183

**REMARKS**

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**I. STATUS OF THE CLAIMS**

Claims 30-58 are pending in this application. Claims 30-39 have been withdrawn in view of the examiner's June 26, 2003 Restriction Requirement. No claim has been amended; however, the examiner has indicated that claims 45-47 would be allowable if rewritten in independent form including all the limitations of the base claim.

**II. OBJECTION TO DRAWINGS**

The examiner has objected to Figure 16 because the axes are not in English. In response, Applicants have amended Figure 16. Accordingly, Applicants submit the objection has been rendered moot and request that it be withdrawn.

**III. REJECTION UNDER 35 U.S.C. § 102(b)**

The examiner has rejected claims 40, 44, and 49 under 35 U.S.C. § 102(b), as anticipated by U.S. Patent No. 5,440,659 ("Bergano et al.") for the reasons given at page 3 of the Office Action. Applicants respectfully traverse this rejection for at least the reasons presented below.

A rejection under Section 102 is proper only when the claimed subject matter is identically described or disclosed in the prior art. *In re Arkley*, 455 F.2d 586, 587 (C.C.P.A. 1972). "For anticipation under 35 U.S.C. § 102, the reference must teach every aspect of the claimed invention either explicitly or impliedly." M.P.E.P. §706.02; see *also*, M.P.E.P. § 2131.

In the present case, Bergano et al. fails to disclose each and every limitation of Applicants' rejected claims, either expressly or inherently. In particular, Bergano et al. fails at least to disclose an optical fibre being arranged along an open helix trajectory, as recited in claim 40. As explained in the present application, a closed helix has windings always directed in the same direction. Specification at page 9, lines 9-12. This is in direct contrast to,

an "open" helix trajectory or "SZ" trajectory is understood as meaning a trajectory along a cylindrical surface resulting from the combination of the translatory movement in a direction parallel to a central axis with an alternate rotary movement about the axis itself.

Specification at page 19, lines 25-30. Thus, an open helix trajectory differs from a closed helix trajectory in that "the winding around the central axis is not always performed in the same direction, but alternately in a clockwise direction and anti-clockwise direction." *Id.* at lines 30-34.

In contrast to Applicants' claim language, Bergano et al. only discloses a closed helix trajectory. Col. 3, lines 12-38; see *also*, Applicants' specification at page 9, lines 9-12 (discussing Bergano et al.). Thus, one of ordinary skill in the art

would recognize that Bergano et al. fails to disclose an open helix trajectory, as required by claim 40.

Accordingly, Applicants maintain that Bergano et al. fails to anticipate the present claims and respectfully request that the Examiner withdraw the rejection of claims 40, 44, and 49 under 35 U.S.C. § 102(b).

#### **IV. REJECTIONS UNDER 35 U.S.C. § 103**

To establish a *prima facie* case of obviousness under 35 U.S.C. § 103, the Office bears the burden of establishing each of three requirements. First, the references must teach or suggest each and every element and limitation recited in the claims. See M.P.E.P. § 2143.03. Second, the Office must show that some suggestion or motivation exists, either in the references themselves, or in the knowledge generally available to one of ordinary skill in the art, to modify the references to achieve the presently claimed invention. See M.P.E.P. § 2143.01. Third, the Office must establish a reasonable expectation of success for the proposed combination. See M.P.E.P. § 2143.02. Each of these requirements must “be found in the prior art, and not be based on applicant’s disclosure.” M.P.E.P. §2143. Moreover, any deficiencies found in the references cannot be cured by appealing to “common sense” and “basic knowledge” without any evidentiary support. *In re Zurko*, 258 F.3d 1379 (Fed. Cir. 2001).

**1. Regarding claims 50 and 53-58**

The Examiner rejected claims 50 and 53-58 under 35 U.S.C. § 103(a) as unpatentable over Bergano et al. for the reason disclosed in page 4 of the Office Action. Applicants respectfully traverse this rejection for at least the reasons presented below.

First, as discussed above, Bergano et al. fails to teach or suggest an optical fiber “being arranged along an open helix trajectory,” as recited in claim 40. Moreover, Applicants submit that the Examiner has not offered any evidence that would provide a motivation to modify Bergano et al.’s teaching of a closed helix trajectory. While closed helix trajectories are known, there is no evidence of record that would suggest to a person of ordinary skill in the art that there is a desirable reason, *i.e.*, a motivation, to replace Bergano et al.’s open helix trajectory with Applicants’ closed helix trajectory.

Second, as admitted by the Examiner, Bergano et al. does not expressly or inherently teach the limitations of claims 53-58. Office Action at 4. The Examiner asserts that a motivation exists to modify Bergano et al. to add these various limitations because these claims fall within the scope of customary practice of persons with ordinary skill in the art. *Id.* However, this argument is legally and factually deficient. It is well-established that “[t]he fact that the claimed invention is within the capabilities of one of ordinary skill in the art is not sufficient by itself to establish a *prima facie* case of obviousness.” M.P.E.P. § 2143. Hence, the

Examiner must offer a factually supported reason known in the art, to apply the limitations recited in Applicants' claims 50 and 53-58. *In re Zurko*, 59 U.S.P.Q.2d 1693, 1697 (Fed. Cir. 2001) ("With respect to core factual findings in a determination of patentability, . . . the Board cannot simply reach conclusions based on its own understanding or expertise . . . Rather, the Board must point to some concrete evidence in the record in support of these findings.") It is simply not enough for the Examiner to provide an opinion. *Id.* The M.P.E.P. further explains that before an Examiner can make such an argument, the Examiner must show that the prior art expressly recognizes that the variable, such as thickness, diameter, radius, etc., is a result-effective variable which achieves a recognized result. M.P.E.P. § 2144.05 (II)(B). If the art does not recognize the effect of varying that parameter, then there can be no obviousness argument. Here, the Examiner has made no such determination because the cited art does not recognize the relationship. Moreover, Applicants' specification is unavailable for that purpose.

For at least these reasons, Applicants submit that the rejection of claims 53-58 is improper and should be withdrawn.

**2. Regarding claims 41 and 42**

The Examiner has rejected claims 41 and 42 under 35 U.S.C. § 103(a) as being unpatentable over Bergano et al., in view of U.S. Patent No. 6,035,086 ("Norman et al."), for the reasons given at page 5 of the Office Action. Applicants respectfully traverse this rejection for at least the reasons presented below.

As discussed above, Bergano et al. fails to teach or suggest an optical fiber “being arranged along an open helix trajectory” as recited in claim 40. Moreover, Applicants submit that the Examiner has not offered any evidence that would provide a motivation to modify Bergano et al.’s teaching of a closed helix trajectory in view of Norman et al. It is obligatory for the Examiner to cite evidence that would suggest to a person of ordinary skill in the art that there is a desirable reason, *i.e.*, a motivation, to replace Bergano et al.’s open helix trajectory with Applicants’ closed helix trajectory.

For at least this reason, Applicants submit that the rejection of claims 41 and 42 is improper and should be withdrawn.

**3. Regarding claims 43 and 48**

The Examiner rejected claims 43 and 48 under 35 U.S.C. § 103(a) as unpatentable over Bergano et al. in view of U.S. Patent No. 5,418,881 (“Hart et al.”) for the reasons given at pages 5-7 of the Office Action. Applicants respectfully traverse this rejection for at least the reasons presented below.

As discussed above, Bergano et al. fails to teach or suggest at least an optical fiber “being arranged along an open helix trajectory” as recited in claim 40. Moreover, Applicants submit that the examiner has not offered any evidence that would provide a motivation to modify Bergano et al.’s teaching of a closed helix trajectory in view of Hart et al. It is obligatory for the Examiner to cite evidence that would suggest to a person of ordinary skill in the art that there is a desirable reason,

*i.e.*, a motivation, to replace Bergano et al.'s open helix trajectory with Applicants' closed helix trajectory.

For at least this reason, Applicants submit that the rejection of claims 43 and 48 is improper and should be withdrawn.

**4. Regarding claims 51 and 52**

The Examiner rejected claims 51 and 52 under 35 U.S.C. § 103(a) as unpatentable over Bergano et al. in view of U.S. Patent No. 6,363,192 ("Spooner et al.") for the reasons given at page 7 of the Office Action. Applicants respectfully traverse this rejection for at least the reasons presented below.

As discussed above, Bergano et al. fails to teach or suggest at least an optical fiber "being arranged along an open helix trajectory" as recited in claim 40. Moreover, Applicants submit that the examiner has not offered any evidence that would provide a motivation to modify Bergano et al.'s teaching of a closed helix trajectory in view of Spooner et al. It is obligatory for the Examiner to cite evidence that would suggest to a person of ordinary skill in the art that there is a desirable reason, *i.e.*, a motivation, to replace Bergano et al.'s open helix trajectory with Applicants' closed helix trajectory.

For at least this reason, Applicants submit that the rejection of claims 51 and 52 is improper and should be withdrawn.


**V. CONCLUSION**

In view of the foregoing remarks, Applicants respectfully request reconsideration and reexamination of this application and the timely allowance of the pending claims. Please grant any extensions of time required to enter this response and charge any additional required fees to our deposit account no. 06-0916.

Respectfully submitted,

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